



Indiana
Department
of
Health

2021 INFANT MORTALITY DATA OVERVIEW

MATERNAL & CHILD HEALTH
EPIDEMIOLOGY

2/13/2023

OUR MISSION:

To promote, protect, and improve the health and safety of all Hoosiers.

OUR VISION:

Every Hoosier reaches optimal health regardless of where they live, learn, work, or play.

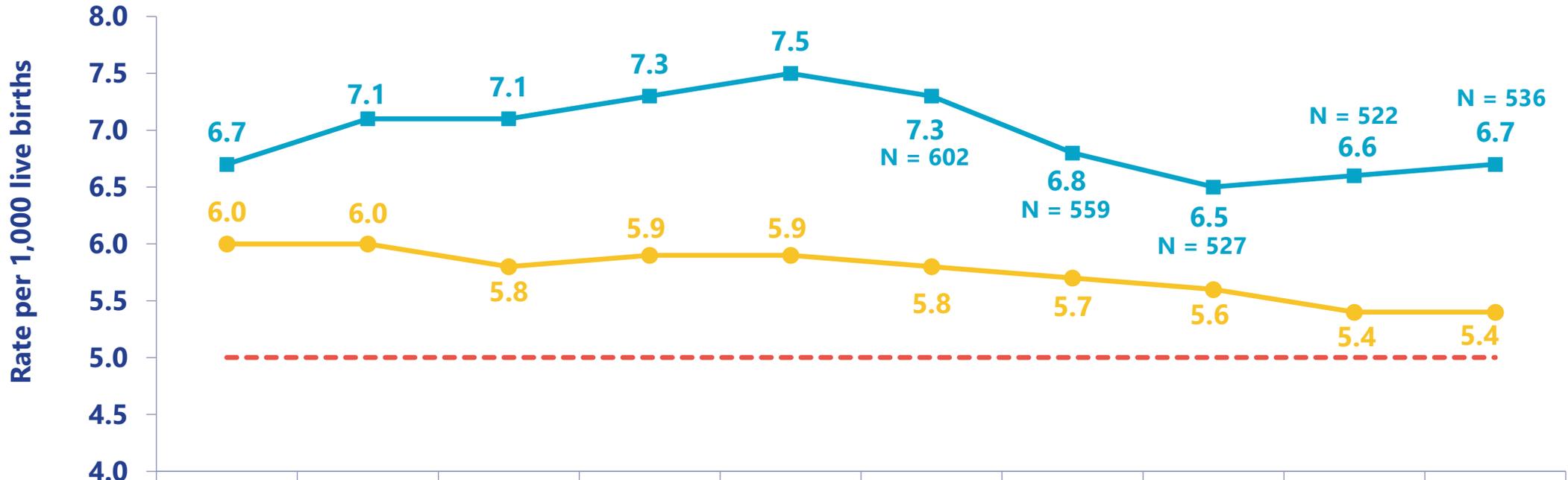


Infant Mortality in Indiana



Infant Mortality Rates (IMRs)

2012-2021



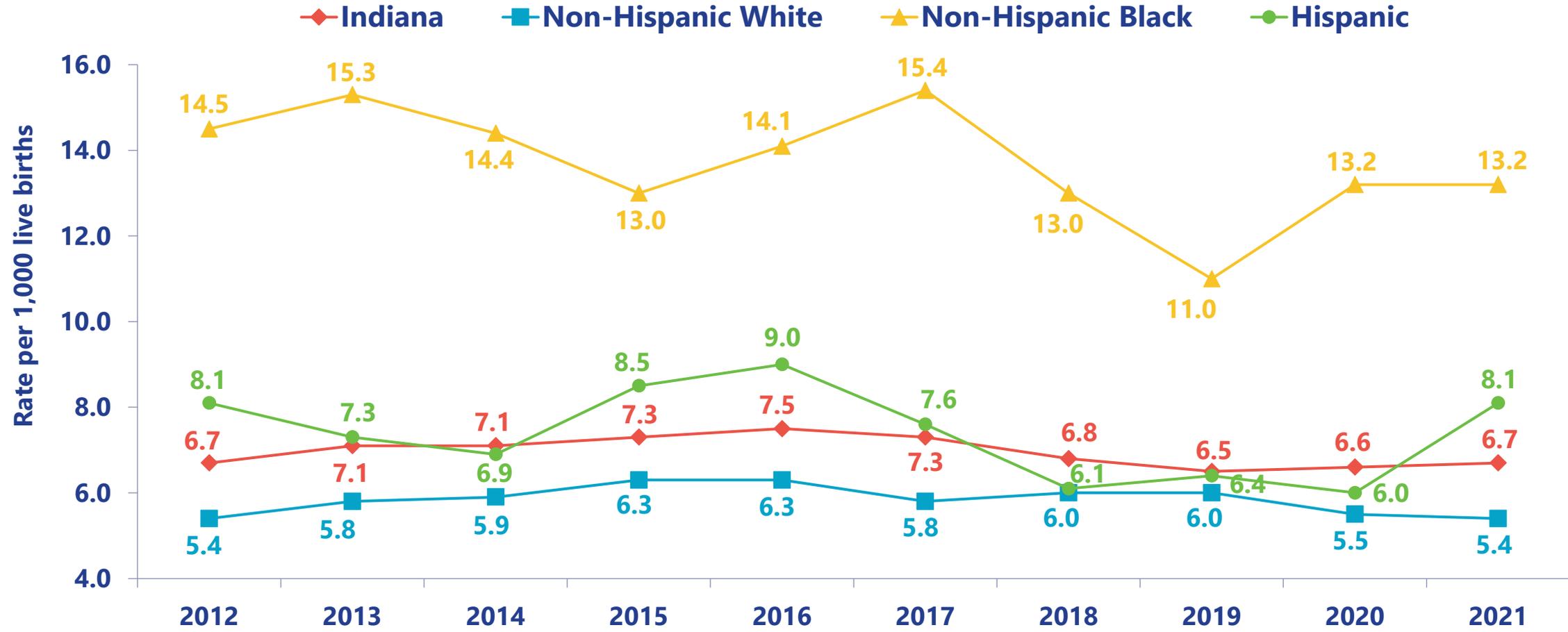
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
—■— Indiana	6.7	7.1	7.1	7.3	7.5	7.3	6.8	6.5	6.6	6.7
—●— U.S.	6.0	6.0	5.8	5.9	5.9	5.8	5.7	5.6	5.4	5.4
- - - HP 2030 Goal	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0



Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [January 9, 2023]
 United States Original Source: Centers for Disease Control and Prevention National Center for Health Statistics
 Indiana Original Source: Indiana Department of Health, Vital Records, ODA, DAT

Indiana IMRs by Race and Ethnicity

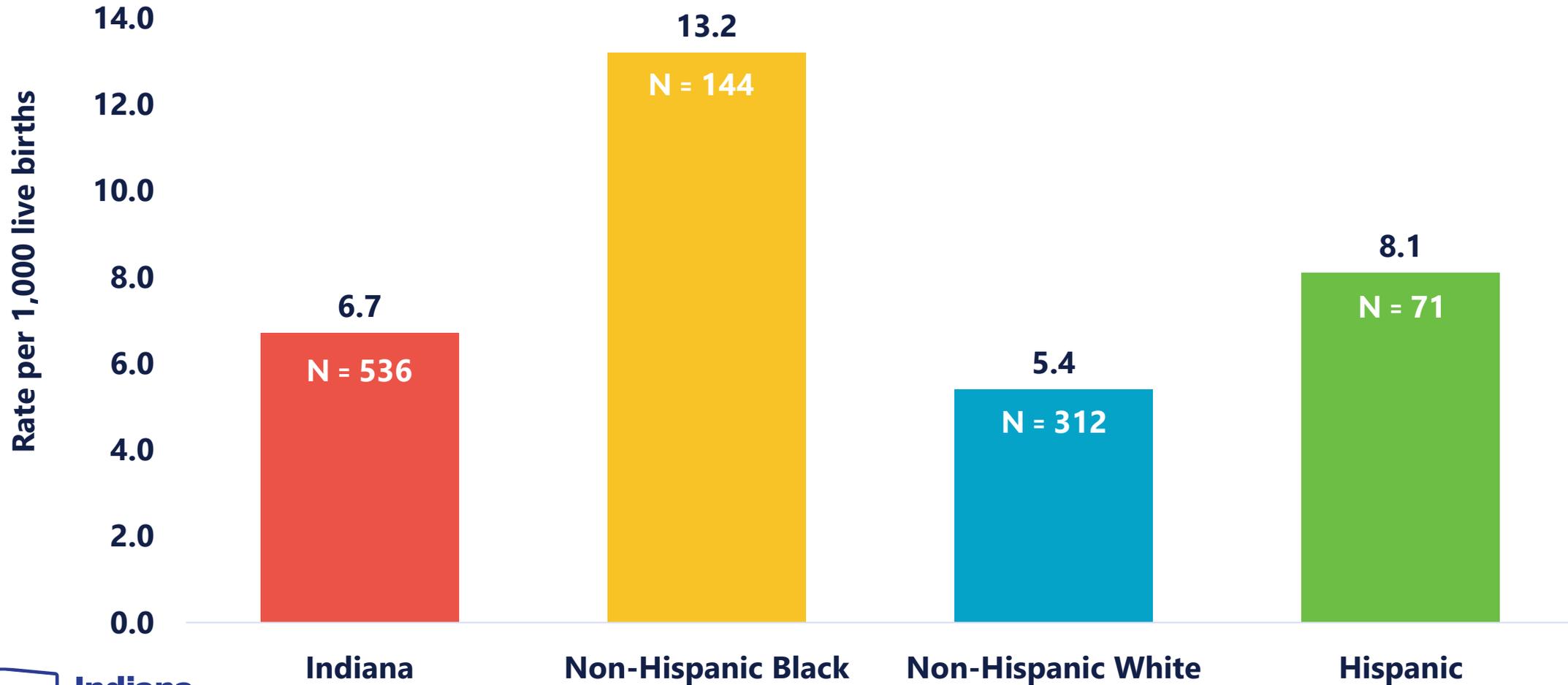
2012-2021



Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [January 9, 2023]
Indiana Original Source: Indiana Department of Health, Vital Records, ODA, DAT

Infant Mortality by Race and Ethnicity

2021



Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [January 9, 2023]
Indiana Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team

Infant Mortality by Geography



Infant Mortality by Indiana Hospital Region

2017-2021

Region	Total	Non-Hispanic White	Non-Hispanic Black	Hispanic
Central	6.4	5.1	10.8	5.7
Central Southwestern	7.8	7.5	12.7*	**
Eastern	7.9	6.9	16.2	8.1*
Midwestern	7.2	7.0	**	7.8*
Northeastern	6.6	5.7	15.6	8.5
Northern	8.1	6.6	17.1	7.0
Northwest	7.0	4.0	13.7	7.4
Southeastern	6.2	6.5	18.3*	**
Southern	6.3	5.9	15.5*	8.1*
Southwest	6.1	5.1	18.1	6.6*
Western	6.3	5.7	15.4	6.3*

*Rates based on counts less than 20 are considered unstable and should be interpreted with caution.

**Rates based on counts less than 5 have been suppressed.



County-Level Indiana Infant Mortality Rates 2017 – 2021

10 Highest Stable Infant Mortality Rates

Adams, 9.5	Delaware, 9.2	Grant, 8.9	St. Joseph, 8.4
Shelby, 8.3	Vigo, 8.3	Elkhart, 8.2	
Marshall, 8.0	Lake, 8.0	Noble, 7.9	

Stable Rates Achieving Healthy People 2020 Goal (IMR < 6.0)

Porter, 3.7	Hendricks, 4.2	Hamilton, 4.9	Johnson, 5.2
Clark, 5.4	Monroe, 5.5	Floyd, 5.7	

Stable Rates Achieving Healthy People 2030 Goal (IMR < 5.0)

Porter, 3.7	Hendricks, 4.2	Hamilton, 4.9
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Stable rates are based on counts of at least 20.
Infant Mortality Rates (IMRs) are per 1,000 live births.

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [January 10, 2023]
Indiana Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team

County-Level Rates by Race/Ethnicity

2017 – 2021

Stable NH Black Infant Mortality Rates

Elkhart, 22.7 Vanderburgh, 19.1 Tippecanoe, 16.5 Allen, 15.5
St. Joseph, 15.2 Lake, 13.7 Marion, 11.1

Stable NH White Infant Mortality Rates*

Adams, 10.3 Shelby, 9.2 Grant, 8.0 Delaware, 7.7
Noble, 7.6 Vigo, 7.4 Wayne, 7.4

Stable Hispanic Infant Mortality Rates

Elkhart, 8.3 Allen, 8.1 Lake, 7.9 Marion, 6.1

NH = Non-Hispanic

**Stable rates are based on counts of at least 20.
Infant Mortality Rates (IMRs) are per 1,000 live births.**

*** Stable rates are only shown if they are above the state average of 6.8 for 2017-2021.**



Highest Infant Mortality Rates by ZIP Code

2017-2021

Zip Code	County	Births	Deaths	IMR	NH White IMR	NH Black IMR	Hispanic IMR
→ 46516	Elkhart	2780	38	13.7	8.0*	38.0	8.3*
→ 46218	Marion	2481	30	12.1	**	14.7	**
46628	St. Joseph	2017	24	11.9	6.5*	19.1*	**
46241	Marion	2587	30	11.6	11.3*	16.0*	8.3*
46219	Marion	2385	27	11.3	7.2*	19.5*	12.3*
46514	Elkhart	2786	30	10.8	9.0*	22.0*	12.3*
→ 46806	Allen	2425	26	10.7	16.3*	15.3*	**
→ 46312	Lake	1970	21	10.7	**	18.0*	6.0*
46410	Lake	2160	23	10.6	**	13.7*	12.4*
46222	Marion	3056	29	9.5	**	18.9	4.8*
46201	Marion	2577	24	9.3	9.3*	13.1*	**
46224	Marion	3598	31	8.6	**	8.0*	8.7*
46235	Marion	3305	28	8.5	**	9.7*	6.2*

*Rates based on counts less than 20 are considered unstable and should be interpreted with caution.

**Rates based on counts less than 5 have been suppressed.

NH = Non-Hispanic
 Added to the table this year.

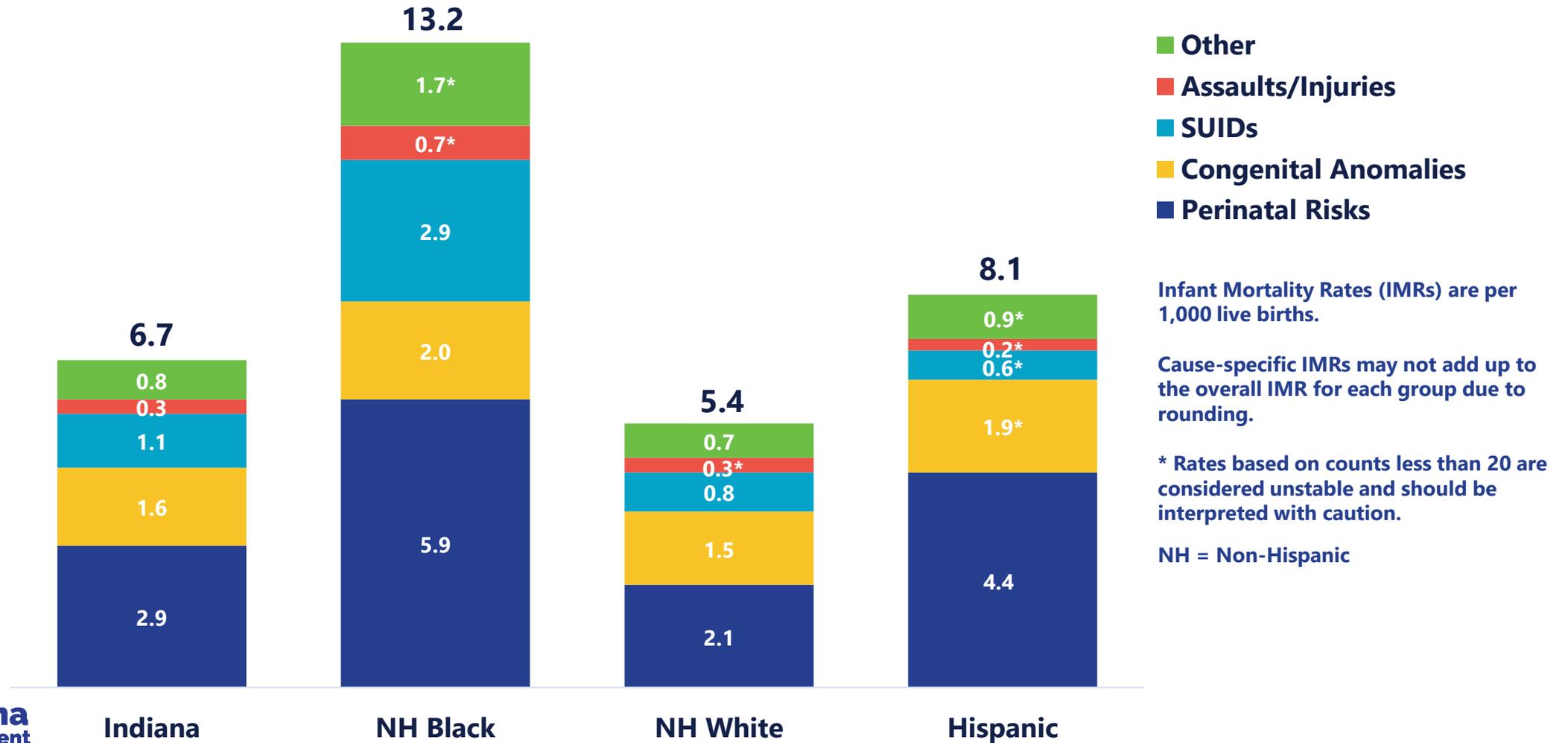
→ On the list in 2014-2018, 2015-2019, 2016-2020, and 2017-2021.



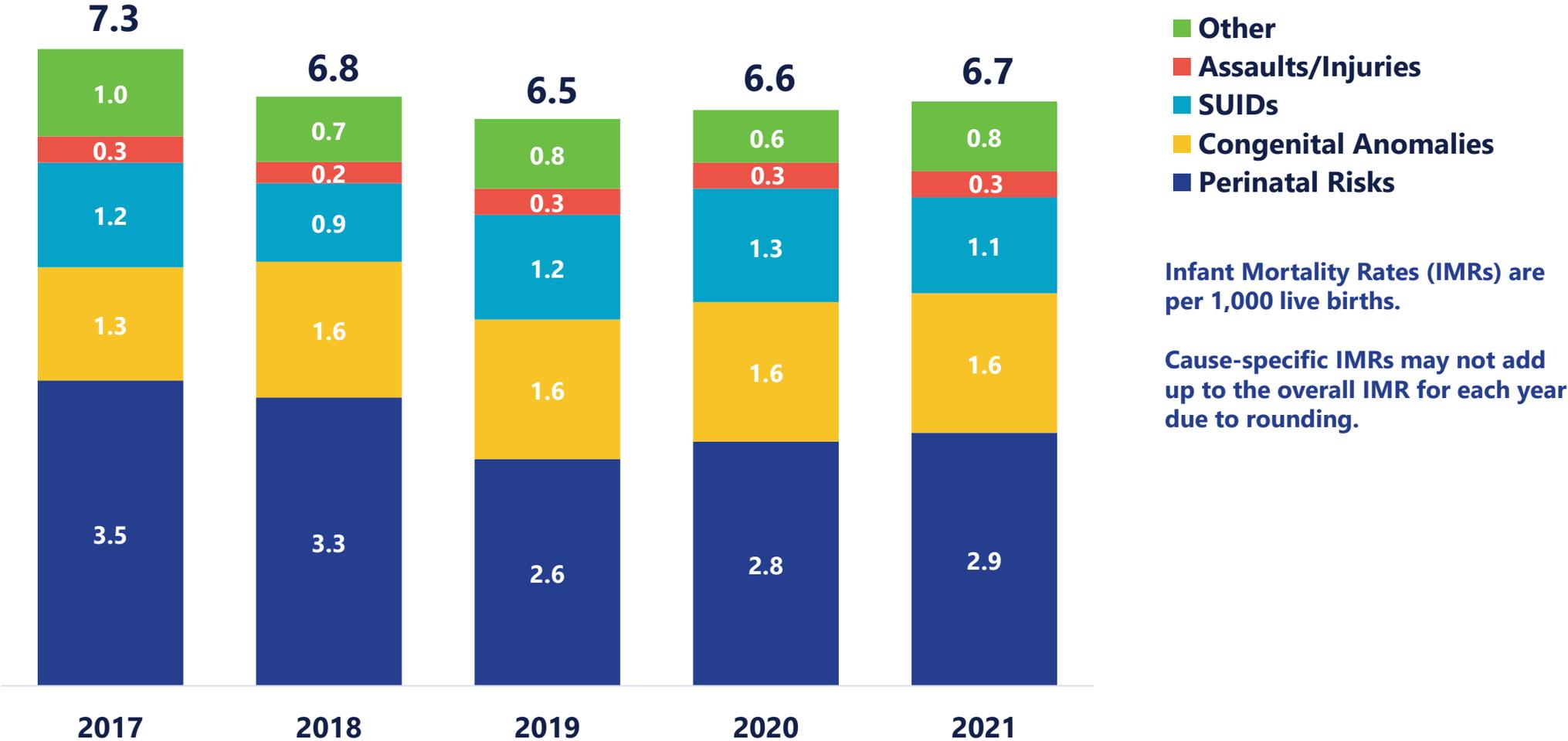
Cause-Specific Infant Mortality



2021 Cause-Specific IMR by Race/Ethnicity



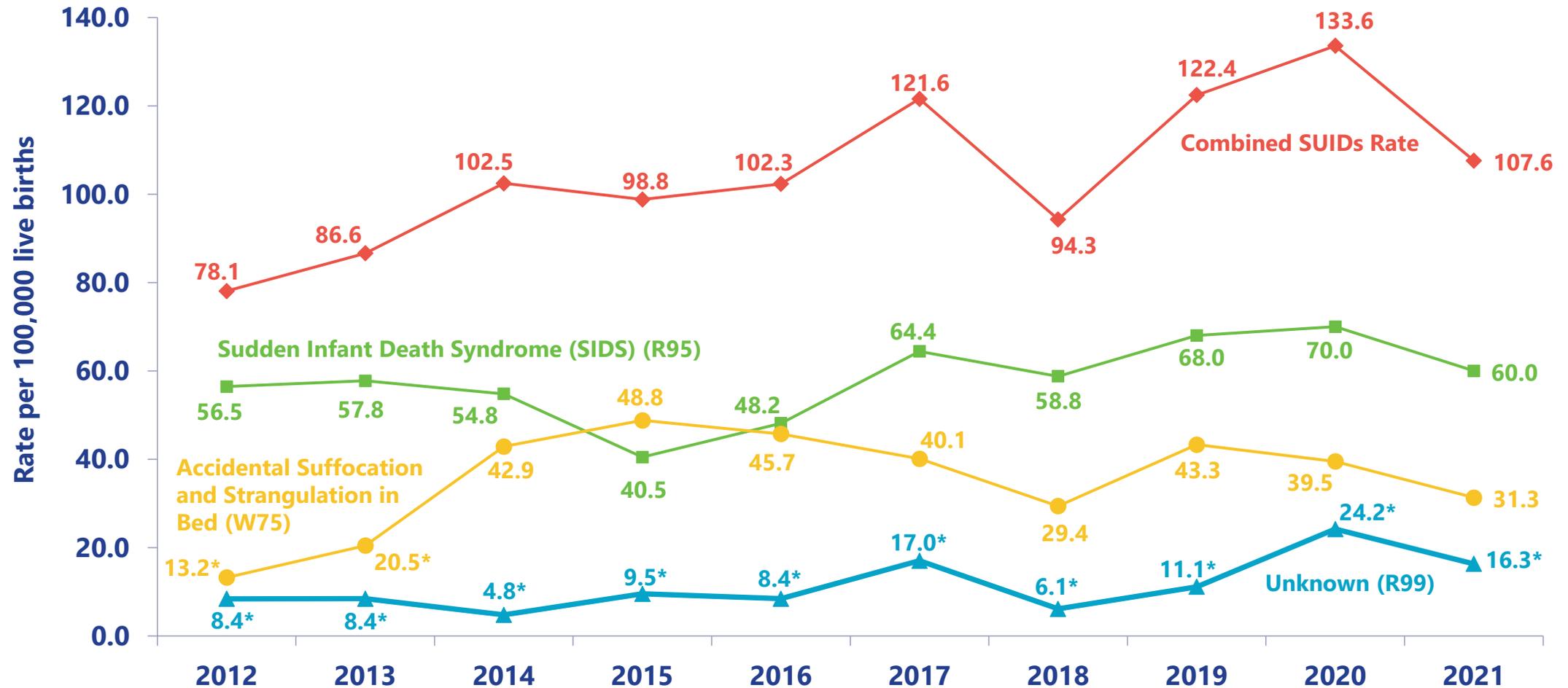
Causes of Indiana Infant Mortality



Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [January 9, 2023]
 Indiana Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team

SUIDs Rates by Cause

Indiana, 2012-2021



* Rates based on counts less than 20 are considered unstable and should be interpreted with caution.

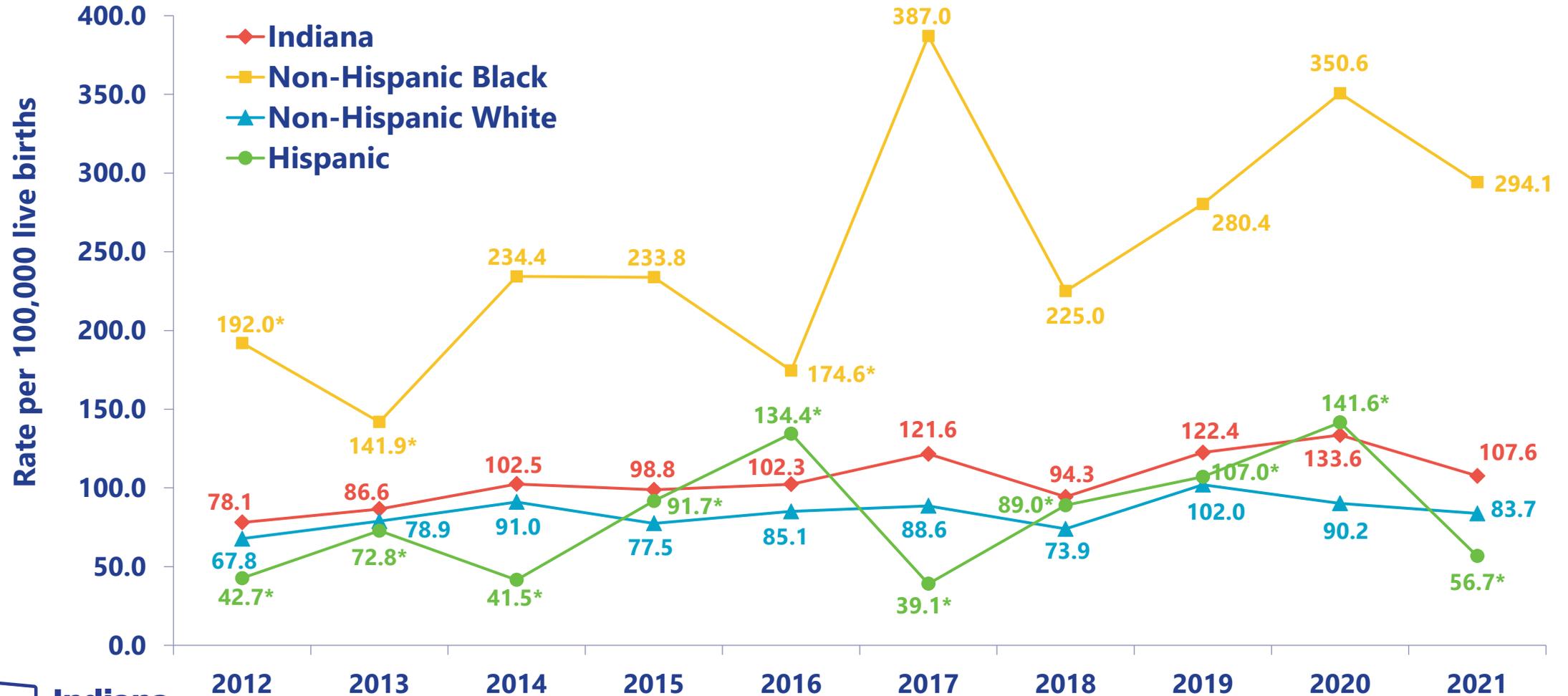


SUIDS = W75, R95, R99

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [January 9, 2023]
 Indiana Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team

SUIDs Rates by Race & Ethnicity

Indiana, 2012-2021



* Rates based on counts less than 20 are considered unstable and should be interpreted with caution.



SUIDs = W75, R95, R99

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [January 9, 2023]
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Infant Mortality by Age

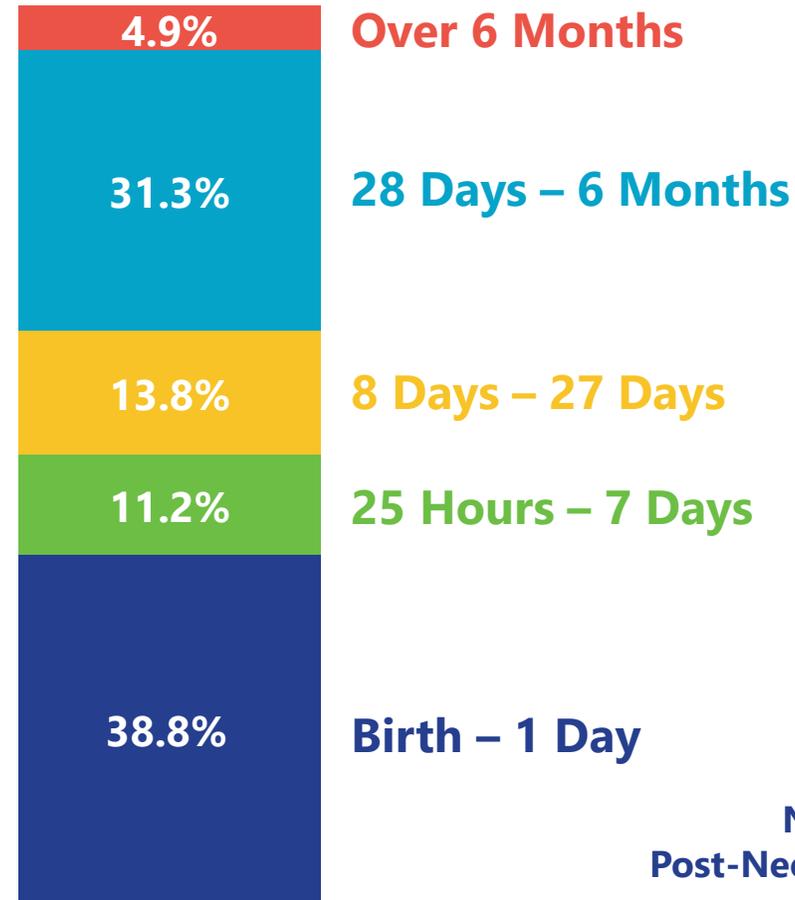


2021 Infant Deaths by Age of the Baby

N = 536
Total Neonatal = 342
Total Post-Neonatal = 194

63.8%

of Indiana infant deaths
occurred during the
neonatal (0-27 days)
period



Neonatal = 0-27 days
Post-Neonatal = 28-364 days

Time-specific percentages may not add up
to 100% overall due to rounding.



Birth Outcomes



Indiana Birth Outcomes

Measure	2020	2021
Preterm (< 37 weeks gestation)	10.4%	10.9%
Low Birthweight (< 2500 g)	8.1%	8.4%
Very Low Birthweight (< 1500 g)	1.4%	1.3%
Not Breastfeeding (at discharge)	18.0%	18.6%
No Early Prenatal Care (1 st Trimester)	30.7%	28.3%
Mothers on Medicaid	38.5%	39.9%
Teen Pregnancy	5.3%	4.9%



Percentages are significantly different than the previous year at 0.05 level.

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [January 11, 2023]
Indiana Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team

2021 Birth Outcomes by Race/Ethnicity

Measure	Indiana	Non-Hispanic Black	Non-Hispanic White	Hispanic
Preterm (< 37 weeks gestation)	10.9%	14.1%	10.4%	10.7%
Low Birthweight (< 2500 g)	8.4%	14.1%	7.3%	8.2%
Very Low Birthweight (< 1500 g)	1.3%	2.5%	1.1%	1.5%
Not Breastfeeding (at discharge)	18.6%	26.1%	17.9%	14.8%
No Early Prenatal Care (1 st Trimester)	28.3%	39.5%	23.9%	41.2%
Mothers on Medicaid	39.9%	63.7%	31.4%	65.3%
Teen Pregnancy	4.9%	7.9%	3.9%	8.2%

2021 Smoking During Pregnancy

- Births exposed to **cigarette smoking during pregnancy**: 9.8%
 - Differs from previous years' smoking during pregnancy metrics and should not be compared to that data over time
 - The new smoking during pregnancy variable includes responses to the number of cigarettes smoked per day by trimester, first cigarette use after waking up, and attempts to quit smoking during pregnancy
- Of the records indicating **time until first cigarette** after waking up:
 - 10.6% reported cigarette use within 5 minutes
 - 24.3% reported cigarette use between 6 and 30 minutes
 - 16.7% reported cigarette use between 30 minutes and 1 hour
- About 2,800 birth records document an **attempt to quit cigarette use** (stopped smoking for at least one day)

2021 Tobacco Use During Pregnancy

- Births exposed to **any tobacco use during pregnancy: 10.7%**
 - This variable includes a 'yes' response to use of any of the following tobacco products: cigarettes, e-cigarettes, vapes, cigarillos, little cigars, chewing tobacco, snus, nicotine pouches, hookah, shisha, or water pipe
- At any point during pregnancy did you use*:
 - **E-cigarettes or vapes: 2.0%**
 - **Cigarillos or little cigars: 0.3%**
 - **Chewing tobacco, snus, or nicotine pouches (smokeless tobacco): 0.1%**
 - **Hookah, shisha, or water pipe: 0.1%**
- About 1,000 birth records document an **attempt to quit any tobacco use** other than cigarettes (stopped use for at least one day)

Questions?

Division of Maternal & Child Health

Indiana Department of Health

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